



Espacenet

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Automatic control of certain driving functions, e.g. maximum speed, when a vehicle is used in foreign country

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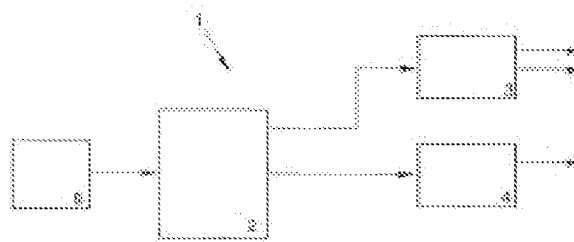
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Cited documents: DE19751306 (A1) DE19690734 (A1) DE19506890 (A1) DE4437360 (A1) [View all](#)

Abstract of DE 19802594 (A1)

A radio signal received while the vehicle is temporarily stationary is decoded by the vehicle and country relevant parameters for the program or programs for the operating devices are initialized. Examples of data to be downloaded are which side of the road to drive on, maximum speed, minimum interval between vehicles, climatic conditions, etc. The radio signal is a GPS or a RDS signal.



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**DEUTSCHES
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㉖ Entgegenhaltungen:

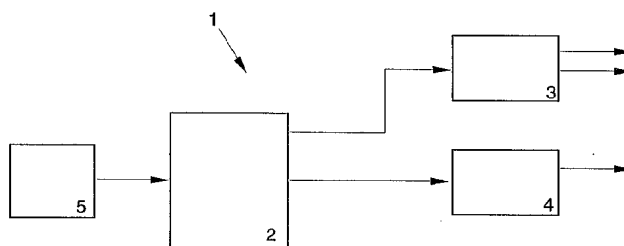
DE 1 97 51 306 A1
DE 1 96 00 734 A1
DE 1 95 06 890 A1
DE 44 37 360 A1
DE 41 11 147 A1
DE 30 05 602 A1
EP 03 92 953 B1

Die folgenden Angaben sind den vom Anmelder eingereichten Unterlagen entnommen

Prüfungsantrag gem. § 44 PatG ist gestellt

㉗ Verfahren zum Steuern von Einrichtungen für automatisierte Fahrfunktionen

㉘ Die Erfindung betrifft ein Verfahren zum Steuern von Einrichtungen für automatisierte Fahrfunktionen eines Kraftfahrzeuges. Hierbei werden aus einem empfangenen Funksignal Daten bezüglich eines momentanen Aufenthaltslandes des Kraftfahrzeuges dekodiert und gemäß dem derart bestimmten Land vorbestimmte länderspezifische Programme für die oder Parameter der Einrichtungen für automatisierte Fahrfunktionen eingestellt.



DE 198 02 594 A 1

1 **Description DE19802594**

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3 The invention relates to a method for controlling equipment for automated driving
4 functions of a motor vehicle according to the preamble of claim 1

5 From DE 41 11 147 A1 a method and an apparatus for displaying geographic data,
6 wherein from a local broadcasting digital location-specific geographical data, such as a
7 local map, broadcasted and received by suitable receiving means of a motor vehicle,
8 decoded, buffered, and on a display means be reproduced.

9 DE 30 05 602 A1 describes a device built in a land vehicle for disseminating information
10 about an itinerary. These geographic features on the actually traversed or immediately
11 following section of the vehicle occupants are taught, such as information on attractions,
12 rest areas or other hazards.

13 Similarly, DE 44 37 360 A1 a guide prior information with site-controlled output, where
14 GPS data is evaluated and appropriate to be played on a CD-ROM stored sound files
15 depending on the current whereabouts of the vehicle. For example, a voice output is
16 activated automatically when the vehicle is approaching certain sites. Serve as a trigger
17 from a GPS system, additional space coordinates.

18 From DE 195 06 890 A1 is this also a travel and management information system,
19 wherein audio and / or visual representations of information about landscapes, buildings,
20 cities, historical and artistic events and descriptions for travelers or visitors in
21 dependence of at a specific location or distance associated with Earth Coordinates are
22 triggered.

23 The aforementioned systems, however, serve only as a navigational aid and / or guide in
24 the form of a route for motorists. Country-specific characteristics of road traffic, such as
25 driving on the left, need to be driving and control of the vehicle taken by the driver itself
26 and not be included in automated driving features such as automatic distance control
27 (ADC function). In extreme cases, for example, a vehicle designed for right, can in a
28 driving environment with links to traffic adaptive cruise control are not used. Also there
29 are different legal situations in various countries, for example to be followed for a
30 distance, cause the cruise control for the country in which a motor vehicle to be
31 operated, is adapted. This represents a major production effort.

32 DE 196 00 734 A1 describes a method for controlling aggregates of a motor vehicle, with
33 GPS data to determine a vehicle's surroundings associated with the vehicle out,
34 statistical data and are processed into a control variable, which is a circuit program for a
35 stepped or continuously variable automatic transmission of the motor vehicle varied.

36 The present invention is to provide an improved method of the above Propose one way
37 and ease of use for a motor vehicle traffic in areas with different specifications or
38 country-specific characteristics to increase the road traffic.

39 This task is inventively solved by a method of the aforementioned type with the features
40 characterized in claim 1. Advantageous embodiments of the invention are set forth in the
41 dependent claims.

1 For this it is inventively provided that with respect to a received radio signal decoded
2 data of a current country of residence and motor vehicle according to the predetermined
3 in such particular country or country-specific parameters of the programs for the facilities
4 set up for automated driving functions.

5 This has the advantage that a set of country specifications of a motor vehicle, depending
6 on the current whereabouts of the vehicle takes place, so that a predetermined fixed and
7 unchanging set of accounts for country-specific vehicle parameters. This simplifies a
8 manufacturing process and a number of variants in the manufacture of vehicles for
9 different countries is reduced. Furthermore, a rapid and reliable detection of country-
10 specific characteristics is possible, the automated driving functions quickly, easily and
11 automatically be adjusted.

12 Usefully, the device for automated driving functions of a control or regulating unit or
13 system.

14 In a particularly preferred embodiment, the automated driving function, a speed and / or
15 adaptive cruise control and / or trajectory control.

16 Includes the received radio signal parameters from which the estimated climate profile
17 can be determined, according to other preferred embodiments may be provided comforts
18 to control and / or battery charging automatically.

19 According to an advantageous further embodiment of the invention, there is still the
20 possibility of a device for automatically controlling suspension tuning, ie. the comfortable
21 country-specific chassis or less convenient to adjust.

22 A particularly simple to realize process is achieved in that the received radio signal is a
23 GPS signal or an RDS signal, because such information either in the motor vehicles
24 already exist or are easy to retrofit.

25 Conveniently, the country-specific programs or parameters for such a right or left hand
26 traffic.

27 Other features, advantages and advantageous embodiments of the invention will
28 become apparent from the dependent claims and from the following description of the
29 invention.

30 Automated driving functions of a motor vehicle related to a particularly large crowd in
31 their functional ability of country-specific characteristics of road traffic. Shall apply in
32 some countries, links or traffic, there are different legal requirements regarding distance
33 requirements or allowable speed limits on different road types, such as highways or
34 country roads.

35 The invention now provides a way to implement such automated driving functions to
36 independent country in motor vehicles. For this, a radio signal is used, which contains
37 data from which information can be derived via a straight trafficked country. Depending
38 on certain land or unidentified are stored in facilities or systems for automated driving
39 functions such different specifications or parameters or programs that can be adjusted
40 accordingly.

41 The invention using an exemplary embodiment is explained in detail. The single figure
42 shows a block diagram of the inventive method used Setup 1

1 In one embodiment, the device on a designed for the reception of radio signals receiving
2 device 6. There are examples of such radio signals as radio signals subsequently
3 described below with RDS radio and tonality of satellite navigation signals (GPS signals)
4 are explained.

5 A signal from a radio data system (RDS), a so-called RDS signal used in radio program
6 broadcast, for example, of radio programs for people traveling in a motor vehicle which
7 is equipped with an appropriate RDS car radio, for the transmission of various important
8 information, with which the RDS car radio a number of operations needed for a clear
9 reception independently and automatically executes, without, for example a driver's
10 attention from the Carry traffic away and manual inputs at the RDS car radio does. Also
11 contains this RDS signal information that may be communicated to a display of the RDS
12 car radios the driver or a user. The RDS signal is a specified therein EBU specification
13 DIN EN 50 067 and provides for the differentiation of the various radio stations with
14 correspondingly different transmitter chains in addition a program identification code, the
15 Sogn. PI code. This is according to the EBU specification DIN EN 50 067 4 digits, the
16 first well Nibble to 4 Nibble be called. The first Nibble characterizes the country, such as
17 "D" for Germany or "F" France. By evaluating this first Nibbles is thus a momentary
18 country of residence and are easy to determine appropriate automated driving functions
19 of country-specific circumstances customizable. Since this system is scaled accordingly,
20 it can be used across countries. The special advantage is that today virtually every
21 vehicle has an RDS-receiver and decoder in the form of a car radio. From this country
22 only the decoded information is to be tapped.

23 A satellite-based navigation system called GPS for short, is equipped with a radio signal
24 data from which a GPS receiver determines a current position. From this current position
25 is obtained directly, a staging post, where a particular country is assigned. These
26 include for example a GPS navigation system or GPS emergency call system is used,
27 which for example in a motor vehicle is already there.

28 After receiving the radio signals by the receiving device 5, this forwarded to a processing
29 device 2, which consists of the radio signals information regarding decoding of a current
30 country of residence of the vehicle and emits a function of the current country of
31 residence, control signals, for example, a device 3 for distance regulation 3, which in
32 turn control signals for the prime mover and / or the braking device forms.

33 Furthermore, in the embodiment illustrated, the processing device 2 in respect of the
34 data to determine the current country of residence of an estimated climate profile and,
35 depending on the climate profile generates control signals for an air conditioning system
36 4 of the motor vehicle. The control of other driving functions is feasible.

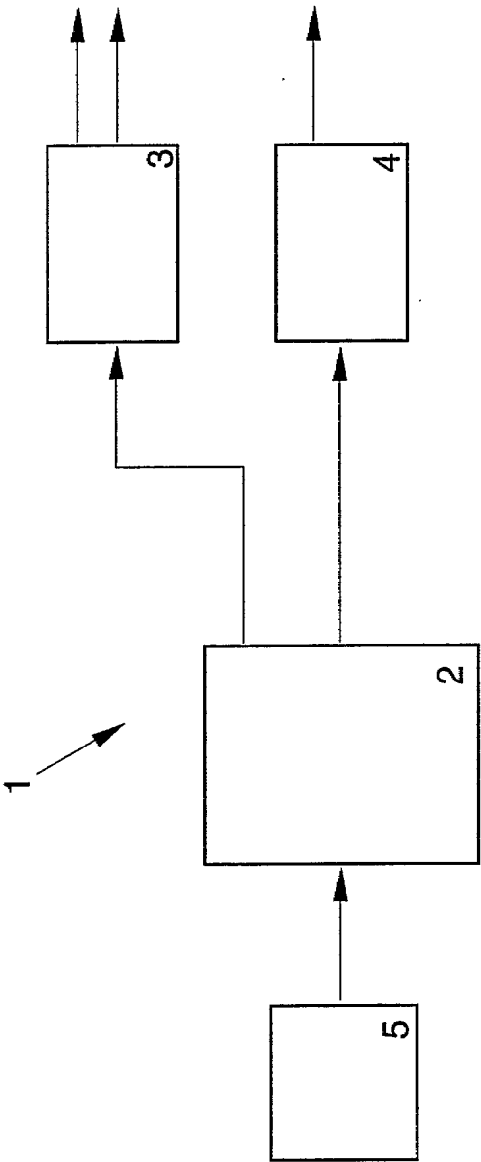


FIG. 1